

WHAT IS CLAIMED IS:

1. A method for processing at least two types of payloads received at varying intervals in a communications network using a single processing path, said types of payloads including a first set of payloads having indices associated therewith, and a second set of payloads having no indices associated therewith, the method comprising:

assigning pseudo indices to the second set of payloads having no indices associated therewith; and

10 providing the first set of payloads having indices associated therewith and the second set of payloads having pseudo indices assigned to the single processing path.

2. The method of claim 1, wherein the first set of payloads comprises virtually concatenated payloads according to SONET/SDH architecture, and the second set of payloads comprises contiguously concatenated payloads according to SONET/SDH architecture.

3. The method of claim 1, wherein the providing comprises aligning the first set of payloads having indices associated therewith and the second set of payloads having pseudo indices assigned in an alignment buffer to form aligned data.

4. The method of claim 3, wherein said providing further comprises sending the aligned data to a data mapping element.

5. The method of claim 3, wherein the aligning employs the indices for the first set of payloads to align the first set of payloads and the pseudo indices assigned

to the second set of payloads to align the second set of payloads.

6. The method of claim 1, wherein the indices for the first set of payloads comprise multi frame indication indices and the pseudo indices assigned to the second set of payloads comprise pseudo multi frame indication indices.

7. The method of claim 2, wherein the indices for the first set of payloads comprise multi frame indication (MFI) indices and the pseudo indices assigned to the second set of payloads comprise pseudo MFI indices.

8. An apparatus for processing at least two types of payloads received at varying intervals in a communications network using a single processing path, said types of payloads including a first set of payloads having indices associated therewith, and a second set of payloads having no indices associated therewith, the apparatus comprising:

a receiving preprocessing arrangement for receiving the first set of payloads and the second set of payloads;

a processor configured to receive the second set of payloads and assigning pseudo indices to the second set of payloads having no indices associated therewith; and

an alignment buffer configured to receive the first set of payloads, the second set of payloads, the indices for the first set of payloads, and the pseudo indices for the second set of payloads and provide aligned blocks of data.

9. The apparatus of claim 8, wherein the first set of payloads comprises virtually concatenated payloads

according to SONET/SHD architecture, and the second set of payloads comprises contiguously concatenated payloads according to SONET/SDH architecture.

10. The apparatus of claim 8, wherein the receiving
5 preprocessing arrangement comprises a plurality of preprocessors configured to realign data.

11. The apparatus of claim 10, wherein the realignment of data comprises rearranging data into a predetermined format by simultaneously reading and writing
10 data using a plurality of flip flops.

12. The apparatus of claim 8, wherein the alignment buffer provides the aligned blocks of data to a data mapping element.

13. The apparatus of claim 8, wherein the alignment
15 buffer employs the indices for the first set of payloads to align the first set of payloads and the pseudo indices assigned to the second set of payloads to align the second set of payloads.

14. The apparatus of claim 9, wherein the indices for
20 the first set of payloads comprise multi frame indication (MFI) indices and the pseudo indices assigned to the second set of payloads comprise pseudo MFI indices.

15. The apparatus of claim 8, wherein the processor
assigns pseudo indices for the second set of payloads based
25 at least in part on word number and slot index for each payload of the second set of payloads.

16. A method for processing virtually concatenated payloads and contiguously concatenated payloads using a

single processing path, said virtually concatenated payloads and contiguously concatenated payloads conforming to SONET/SDH requirements, the method comprising:

assigning pseudo multi frame indications to all
5 contiguously concatenated payloads; and

providing the virtually concatenated payloads and contiguously concatenated payloads having pseudo multi frame indications assigned thereto to the single processing path.

10 17. The method of claim 16, wherein the providing comprises aligning the virtually concatenated payloads and contiguously concatenated payloads having pseudo multi frame indices assigned in an alignment buffer to form aligned data..

15 18. The method of claim 17, wherein the aligning employs the multi frame indications for the virtually concatenated payloads to align the virtually concatenated payloads and the pseudo multi frame indications for the contiguously concatenated payloads to align the
20 contiguously concatenated payloads.

19. The method of claim 17, wherein assigning pseudo multi frame indications is based at least in part on word number and slot index for each payload of the contiguously concatenated payloads.